



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

May 9, 1984

Mr. Larry Simpson, Mine Manager  
Western States Minerals Corporation  
P. O. Box 1177  
Delta, Utah 84624

ATTENTION: Mr. Dave Linebarger

RE: Proposed Waste Rock Leach Dump  
Drum Mine  
ACT/027/007  
Millard County, Utah

Dear Mr. Simpson:

The Division has completed the review of Western States Minerals Corporation's February 21, 1984 submittal for a new Waste Rock Leach Dump. The following technical deficiencies have been uncovered as a result of the review and must be addressed prior to issuance of final Division approval:

Rule M-3(1)(e) - DWD

The applicant must submit design plans for the collection pond below the proposed leach pile. Cross-sections should be submitted which indicate pond dimensions and embankment slopes. Calculations should be submitted which show that the capacity of the constructed pond will contain the precipitation generated during a 25-year, 24-hour storm plus the maximum amount of leachate that will collect at any one time.

The operator must install an emergency discharge structure on the pond such that no discharge will take place up to and including a 25-year, 24-hour precipitation event.

Title 40-8-12(1)(b)  
Rule M-3 (2)(c)(2) - DWD

Fencing, as described in the original mine plan, must be installed around the pond to prevent wildlife from coming in contact with the pond water.

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Rule M-10(4) Slopes - SS

The applicant must commit to crisscross ripping, scarification or terracing the steep slopes of the reclaimed leach pad. Also, the applicant must submit postmine cross-sections of the leach pad including drainage controls and direction of flow from the pad.

Rule M-10(3)(13) Impoundments, Dams - DWD

The operator must submit reclamation plans for the pond. It is interpreted that the pond and waste leach dump site will be reclaimed two to three years after the other mining operations have been reclaimed. Please comment.

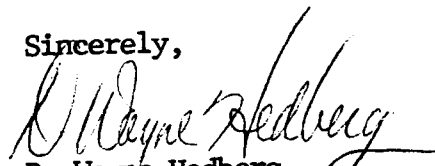
Rule M-5 Surety (Bonding) - SS

The attached bonding adjustment has been calculated by the Division. This will require a revision to the existing surety amount currently on file with the Division for the Drum Mine.

Please provide the above referenced information at your earliest convenience so that the processing of this revision may be completed and approved within a reasonable time frame.

Should you have questions or comments pertaining to this review, please contact me directly.

Sincerely,

  
D. Wayne Hedberg  
Permit Supervisor/  
Reclamation Hydrologist

DWH/btb

cc: J. Smith, DOGM  
S. Storrud, DOGM  
D. Darby, DOGM  
86420

# CONSOLIDATED ESTIMATE (MODIFICATION - NEW LEACH DUMP)

SHEET NO. 1

PROJECT: WESTERN STATES Mineral - Deum Mine CLASSIFICATION: Non-Cork

ESTIMATE NO. 1 - 16 AUGUST 1964

LOCATION: Deum Mtns - Millard County

DATE: 4/30/64

TAKE OFF BY: S.S. QUANTITIES BY: S.S. - PRICES BY: S.S. - EXTENSIONS BY: S.S. - MODIFICATIONS BY: S.S.

DESCRIPTION	NO.	Pg	Line	Item	QUANTITY	UNIT	MATERIAL	LABOR	EQUIPMENT	TOTAL COST	MODIFICATIONS
COMPACTION (LEACH)	1	29	5620	8-10" 25.8/3	C.Y.					231	8002 13
(PASS)											
GRAVEL ROAD	2	37	2100	8-10" 46.80	S.Y.					0.43	4162 40
(EXCLUDE MATERIALS)											
ROAD LEACH	3	28	4000	8-10" 2122	C.Y.					0.81	1800 00
BACKFILLING											
SURE ROAD											
ASSUMED 8-8'											
ROAD REPLACEMENT	4									1.00	12907 00
(EXISTING ROAD)											
SCAFFOLDING	5	39	310	8-10" 12.907	C.Y.					0.19	2452 33
REVEGETATION											
RESTORING	6	50								0.45	7600 00
MONITOR 1/2 OF											1170 00
BOND AMOUNT											
(EXISTING)											
PILE CLEANUP	7	16	40	50 1/2	1/2						800 08
400 BUSH TREES											250 00
TRASH, DEBRIS											



CONTINUED ESTIMATE SUMMARY

PROJECT WESTERN STATES - DRUM MINE TOTAL AREA Approx - 16 AC SHEET NO. 1  
LOCATION Millard County - DRUM MTS TOTAL VOLUME — ESTIMATE NO. 1  
DATE 4/30/84

WERNER WESTERN STATES MINERAL

WNER: WESTERN STATES MINERALS  
 QUANTITIES BY: SHANNON PRICES BY: MEANS-SITE DATA / NATURE PLANTS CHECKED BY: \_\_\_\_\_

QUANTITIES BY SHANNON		PRICES BY MEANS SITE DATA / NATURAL PLANT		SUBCONTRACT	
Q.	DESCRIPTION	MATERIAL	LABOR	EQUIPMENT	TOTAL
	SITE WORK				
1.	COMPACTION.				8002 13.
2.	GRAVING (ACCESS ROAD SURGE POND)				4162 40
3.	GRADE LEACH PAD (5 DAYS 0-9)				4464 92
4.	BACKFILL POND				1800 02
5.	TOPSOIL PLACEMENT.				12907 09
6.	SCARIFICATION				2452 38
7.	REVEGETATION/SEEDING				7200 02
8.	P.P.E./RUBBISH GENERAL CLEANUP				1050 02
9.	MONITOR				1170 00
TOTAL DIRECT COSTS:					43,208 02
LOCATION CORRECTION FACTOR(X) (SEE MEANS SITE WORK PG 369)					994
SUBTOTAL:					42,949 00
CONTINGENCIES (10% OF SUBTOTAL)					4,295 00
TOTAL					47,244 00